

REMARKS

This is a continuation patent application of the parent case Application Serial No. 10/058,912, filed on January 28, 2002 wherein Claims 35-41 were presented but withdrawn and the original Claims 1-32 and new Claims 33-34 were constructively elected by the Examiner.

Applicants hereby submits this continuation application with currently amended Claim 1, originally filed Claims 1-32, and new Claims 33-41. The basis for new Claims 33 and 34 are found within the specification. In particular, the specification refers to the '146 and the '788 patents¹ which disclose broadcasting with a square point shovel,² only, as understood. Thereafter, the specification states that the desirable characteristics of the '146 and the '788 patents are hard to achieve for large areas.³ The specification subsequently states that the present invention alleviates the problems in treating large areas.⁴ As such, the specification expressly or at least implicitly discloses broadcasting particulate greater than a distance sprayable with a square point shovel or with manual means.

The basis for new Claims 35-41 were stated in the prosecution of the parent case. Applicants recite the basis for these claims again for the Examiner's convenience. In relation to Claim 35, step a is disclosed in paragraph 33. Step b is disclosed in paragraph 34. Step c is disclosed in paragraph 35. Step d is disclosed in paragraph 37. Step e is disclosed in paragraph 17 and U.S. Patent No. 6,033,146 incorporated by reference in paragraph 5. In US Patent No. 6,033,146, the specification states that power troweling may be used as an alternative to sponging.⁵ Step f is disclosed in paragraph 38. Lastly, step g is disclosed in paragraph 39.

In relation to Claim 36, the basis is found within the specification itself. In particular, the specification recites broadcasting particulate uniformly beyond a distance of ten feet is difficult to achieve,⁶ and subsequently recites that the present invention alleviates the problems described above in treating large areas.⁷ In relation to Claim 37, the basis is found within original Claim 14 of the parent application. In relation to Claim 38 and 39, the specification refers to the '146

¹ Col. 1, paragraph 4 and 5.

² '146 patent, col. 4, ln, 12; '788 patent, col. 4, ln. 8.

³ Col. 2, paragraph 6.

⁴ Col. 2, paragraph 8.

⁵ U.S. Patent No. 6,033,146, col. 2, lns. 47-48.

⁶ Col. 2, paragraph 6.

⁷ Col. 2, paragraph 8.

and the '788 patents⁸ which are expressly incorporated therein and disclose broadcasting with a square point shovel,⁹ only, as understood. Thereafter, the specification states that the desirable characteristics of the '146 and the '788 patents are hard to achieve for large areas.¹⁰ The specification subsequently states that the present invention alleviates the problems in treating large areas.¹¹ As such, the specification expressly or at least implicitly discloses broadcasting particulate greater than a distance sprayable with a square point shovel or with manual means. In relation to Claim 40, the basis for the power trowel is found in U.S. Patent No. 6,033,146 which is incorporated by reference in paragraph 17 of the specification. In relation to Claim 41, the basis for the broom is found within the specification itself, specifically, at paragraph 39.

Claim 1 has been amended to recite in step (e) "spraying a quantity of particulate through air uniformly upon the upper surface of cement/fines concrete paste greater than ten feet from a sprayer." (emphasis added). This amendment is intended to make clear that the particulate travels through air from a point of origin to a destination. In the context of the present invention, the point of origin is the sprayer and the destination is the upper surface.

The through air aspect and the greater than ten feet aspect of step (e) are not disclosed within Lightle (U.S. Patent No. 5,795,108), which was cited by the Examiner in the parent case. In Lightle, the distance that the particulate travels from the tank to the hose exit may not be characterized as being through air. Rather, it is through a hose. And, more particularly, the particulate may not be characterized as being sprayed through air greater than ten feet from the sprayer. Moreover, the distance that the particulate travels from the hose exit to the sand trap may not be characterized as being greater than ten feet, as understood. Although Lightle is directed to filling sand traps, the sand trap may be filled in many variety of ways. In one particular way, the user or operator may stand within the unfilled sand trap. The operator will place particulates on one edge of the sand trap and fill the sand trap with particulates and walk backwards to the other edge of the sand trap until the sand trap is filled. In this regard, Lightle does not disclose a distance, and more particularly, does not disclose a distance greater than ten feet.

⁸ Col. 1, paragraph 4 and 5.

⁹ '146 patent, col. 4, ln, 12; '788 patent, col. 4, ln. 8.

¹⁰ Col. 2, paragraph 6.

¹¹ Col. 2, paragraph 8.

Even if Lightle may be characterized as disclosing the through air aspect and the greater than ten feet aspect of step e of Claim 1, there is no motivation or suggestion to combine Lightle with the '146 Patent for the same reasons that there was no motivation to combine the '146 Patent with Reed (U.S. Patent No. 3,161,442), as discussed in Applicants' response mailed on May 2, 2003 with respect to the prosecution of the parent case. In that response, the Applicant argued that there was no motivation to combine the '146 Patent with Reed based on a view that the additional kinetic energy within the particulates¹² would penetrate beneath the upper surface which is expressly taught away. The kinetic energy reason is presented here for the Examiner's convenience.

[T]he disclosures of the '788 and '146 patents teach away from spraying particulate greater than ten feet from the sprayer. In support thereof, both the '788 and '146 patents state that the particulate "should not initially depress below the top surface of the concrete mix but rather, should be broadcast solely to cover the same."¹³ In this regard, if the particulate is sprayed a distance greater than ten feet from the sprayer, then the particulate would be more likely to depress below the top surface based on a view that particulate sprayed greater than ten feet contains more kinetic energy than particulate sprayed less than ten feet such that the particulate may travel a greater distance before gravity has pulled the particulate to the ground. As understood, the additionally kinetic energy must be absorbed by the concrete mixture itself. In this regard, the absorption of the additional kinetic energy is accomplished by the concrete mixture by lodging the particulate deeper into the top surface of the concrete mix. As such, one of ordinary skill in the art would be motivated to decrease and not increase the spray distance of the particulate.¹⁴

With respect to the kinetic energy reason, Applicants agree with the Examiner that this reason is sufficient to overcome the obviousness rejection made in the prior Office Action when combining the '146 Patent and Reed.¹⁵ And, furthermore, Applicant respectfully submit that with respect to the through air aspect and the greater than ten feet aspect, the kinetic energy reason is sufficient to show that there is no motivation to combine the '146 Patent and Lightle based on a view that with respect to these two aspects, the Lightle reference may not be characterized as a greater disclosure than the Reed reference.

¹² It is understood that the potential energy that is needed to be transferred to the particulate is greater as the particulate is propelled to a greater distance.

¹³ '146 patent, col. 4, lns. 14-16; '788 patent, col. 4, lns. 10-13.

¹⁴ Applicants' response mailed on May 2, 2003, pp. 10-11.

¹⁵ Office Action dated July 2, 2003, p. 7.

Moreover, if the '146 Patent was combined with Lightle, then the purpose of the '146 Patent would be rendered inoperative for its intended use. As understood, one of the purpose of the '146 Patent is to make a surface for people to walk on. To use the invention disclosed in Lightle, the operator must walk on the uncured upper surface and spray one distal end of the upper surface with the particulates and walk backwards till the whole upper surface is covered. This, as understood, has the resultant effect of leaving the operator's foot print on the upper surface which is not acceptable to the purposes of the '146 Patent. This is a further reason that there is no motivation to combine the '146 Patent with the Lightle reference apart from the kinetic energy reason discussed above. For the foregoing reasons, Applicants respectfully submit that Claim 1 is in condition for allowance.

The dependent claims of amended Claim 1 contain additional patentable subject matter. For example, new Claims 33 and 34. In the prosecution of the parent case, the Examiner, as understood, stated that Lightle discloses the subject matter of Claims 33 and 34. Applicants respectfully disagree. In particular, the subject matter of Claims 33 and 34 are directed to a relationship between distances. In Claim 33, the distance is in relationship with the distance the particulate may be sprayed with a square point shovel, and in Claim 34, the distance is in the relationship with the distance the particulate may be sprayed with manual means. As understood, the disclosure of Lightle does not disclose this relationship nor does the disclosure of Lightle evidence a reference that the particulate may be sprayed a distance greater than a distance which a square tip shovel or manual means may spray the particulate. As understood, as reasoned above, the invention of Lightle is directed toward transporting the particulate from the tank to the sand trap and not to spraying the sand from the hose exit to the sand trap.

The invention disclosed in Lightle may not be capable of spraying the particulate a distance greater than a distance achievable with a square tip shovel or manual means based on a view that most of the energy imparted to the particulates are used to transport the particulate from the tank to the hose exit. As such, as understood, the particulate once it reaches the hose exit may not have sufficient amount of potential energy to spray the particulate a distance greater than that which may be achieved with a square tip shovel or manual means. Hence, for the foregoing reasons, Applicants respectfully submit that Claims 1-34 are in condition for allowance.

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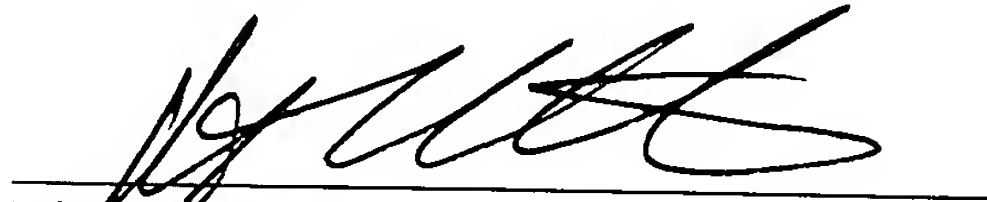
If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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9/2/03

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